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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,311	06/05/2001	Akihisa Yamazaki	0879-0317P	5728

2292 7590 12/20/2006
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EXAMINER

TRAN, NHAN T

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/20/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/873,311

Applicant(s)

YAMAZAKI ET AL.

Examiner

Nhan T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,6,16,17,27,28,38,39 and 50-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,6,16,17,27,28,38,39 and 50-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 10/11/2006, with respect to claims 2, 6, 16, 17, 27, 28, 38, 39, 50-55 have been fully considered but are moot in view of the new grounds of rejection.

In addition to the new grounds of rejection, the Examiner would like to address the Applicant's arguments with respect to the teaching of Saruwatari et al.

The Applicant asserts that Saruwatari does not disclose the idea of using an aperture out of the aperture range for normal shooting and the use of aperture out of the aperture range for the normal shooting for automatic exposure photometry or video signals of auto focus. The Applicant further provides an example if the illumination intensity is low, the aperture for normal shooting becomes a fully open aperture same as S402 in Fig. 11 (Remarks, pages 13 & 14).

In response, the Examiner understands the Applicant's arguments but respectfully disagrees for the following reasons:

(a) The claimed limitation "a normal shooting" is broadly recited. The Examiner considers "a normal shooting" as the shooting performed at daylight with sufficient illumination intensity so that the aperture is not fully open. The aperture may be set at fully open aperture if the illumination intensity is low but this is not a normal shooting. In fact, it is considered as a low-light shooting. Thus, the aperture range for a normal shooting is determined by Saruwatari is the range of aperture values excluding a fully

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open aperture as described in col. 15, lines 9-64. Saruwatari clearly discloses that the aperture is set at fully open aperture (small aperture value) which is definitely designated for auto exposure and auto focus, then the aperture is brought back to a normal aperture (larger aperture value) which is less than the fully open aperture. Specifically, Saruwatari discloses **“In the still-image shooting mode as mention above, this embodiment sets the aperture value of the iris at a smaller value in performing the focusing action than in shooting or taking a shot.”** As clearly seen from the teaching of Saruwatari, the fully open aperture is out of the aperture range for a normal shooting.

(b) As also seen in Fig. 11 and col. 15, lines 9-64, the use of fully open aperture which is out of the aperture range for the normal shooting is for automatic exposure photometry and/or video signals of auto focus.

(c) For the limitations “an aperture range including an aperture out of the aperture range for the normal shooting” are interpreted as a whole aperture range of the iris including an aperture (a fully open aperture) which is **out** of the aperture range (the aperture range excluding the fully open aperture as discussed above) for the normal shooting.

In view of the above, the Examiner believes that the broadest interpretation of the present claimed invention does, in fact, read on the cited references for at least the reasons discussed above and as stated in the following Office Action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 2, 6, 16, 50, 51, 54 & 55 are rejected under 35 U.S.C. 102(e) as being anticipate by Saruwatari et al. (US 6,727,949 B1).

Regarding claim 2, Saruwatari discloses an apparatus (a video camera shown in Figs. 3 & 4) for controlling an aperture (13) of a camera (col. 8, lines 4-8), comprising:

a first determining device (Fig. 3, system control circuit 101) that determines an aperture range (step S407 and col. 15, lines 32-64 and note that “aperture range” set to the iris by camera’s manufacture including a plurality of aperture values is inherently determined the system control circuit 101 for shooting as realized at step S407) for a normal shooting which secures predetermined optical capability (note that “a normal shooting” is considered as the shooting performed at daylight with sufficient illumination intensity so that the aperture is not fully open as discussed in the Examiner’s response above. Furthermore, when the aperture is set for the normal shooting, it secures a predetermined optical capability of the camera);

a second determining device (Fig. 3, exposure control block 104 in combination with system control circuit 101) that determines an aperture range (a whole aperture

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range of iris) including an aperture (a fully open aperture) out of the aperture for the normal shooting (see step S402 and col. 15, lines 20-64, and note that the whole aperture range of iris set by camera's manufacture is inherently determined by the system control circuit 101 in order for the camera to function as disclosed);

a controlling device (system control circuit 101 in combination with exposure control block 104) that controls a diaphragm mechanism (iris 13) (see Figs. 3 & 4; col. 15, lines 9-19 and col. 6, lines 57-59);

the controlling device capable of setting the aperture (the fully open aperture) out of the aperture range for the normal shooting as determined by said second determining device when obtaining *at least one of* photometry data of automatic exposure and video signals of auto focus, and the controlling device capable of setting the aperture determined by said first determining device when recording an image (see Fig. 11 and col. 15, lines 9-64; col. 7, lines 30-55 and note the Examiner's response above).

Regarding claim 6, all limitations of claim 6 are also met by the analysis of claim 2. Additionally, Saruwatari discloses a taking lens (Fig. 4, lens 1); a diaphragm mechanism (Fig. 4, iris 13) that adjusts an amount of light which enters the camera through said taking lens (col. 7, lines 30-55 and col. 15, lines 9-64).

Regarding claim 16, Saruwatari discloses a method for controlling an aperture of a camera (col. 8, lines 4-8), comprising the steps of:

determining the aperture (a fully open aperture) out of an aperture range for a normal shooting which secures predetermined optical capability (see claim 2); and controlling a diaphragm mechanism (iris 13) to use said aperture according to a shooting mode selected (Fig. 11 and col. 7, line 61 – col. 8, line 8 and col. 15, lines 5-19), wherein said aperture is set within the normal shooting range in the shooting mode (see col. 15, lines 9-64 in which the aperture is set to an aperture range less than fully open aperture in a still-image shooting mode under a normal condition as discussed in claim 2 and in the Examiner's response above).

Regarding claims 50 & 51, Saruwatari clearly discloses that an operation of obtaining the at least one of the photometry data of the automatic exposure and the video signals of the auto focus is performed prior to shooting for recording of the image. See Fig. 11 and col. 15, lines 9-64 and col. 7, lines 30-55.

Regarding claims 54 & 55, all limitations of claims 54 and 55 are also met by the analyses of claims 2 & 6, respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 27 & 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saruwatari et al. (US 6,727,949 B1) in view of Norita et al. (US 6,906,751 B1).

Regarding claim 27, Saruwatari as analyzed in claim 2 discloses all limitations of claim 27. Additionally, Saruwatari also discloses that the controlling device sets an aperture within the aperture range as determined by the first determining when shooting in a high-resolution mode (a still-image mode; col. 15, lines 9-19). Saruwatari does not clearly disclose that the auto focus is performed in a low-resolution mode.

However, Norita teaches a camera apparatus that reads out a small number of pixel signals of an image sensor (known as thinning mode or low-resolution mode) when performing auto focus operation, and reads out all pixels (high-resolution mode) of the image sensor when recording an image so that time consuming for reading out pixel signals for auto focusing is greatly reduced, thereby enabling a quick and efficient auto focus operation (see Norita, Figs. 26-28, col. 19, lines 10-62 and col. 1, lines 52-59).

Therefore, it would have been obvious to one of ordinary skill in the art to combine Saruwatari and Norita to use a low-resolution image when performing auto focus operation so that time consuming for reading out pixel signals for auto focusing would be greatly reduced, thereby enabling a quick and efficient auto focus operation.

Regarding claim 38, all limitations of claim 38 also met by the analyses of claims 27 and 6. Furthermore, Saruwatari discloses a shooting mode setting device (103) that sets a shooting mode (see Saruwatari, Fig. 3 and col. 6, lines 42-44).

4. Claims 52 & 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saruwatari et al (US 6,727,949 B1) in view of Kondo (US 5,585,942).

Regarding claims 52 & 53, Saruwatari does not explicitly teach the operation of obtaining the *at least one* of the photometry data of the automatic exposure and the video signals of the auto focus is performed by half-depressing a release button, and the shooting for the recording of the image is performed by fully depressing the release button.

Kondo teaches a camera comprising a two-stroke release button (SW1 and SW2) shown in Fig. 3; col. 5, lines 227-30. Kondo further teaches that the camera performs at least automatic exposure utilizing photometry data obtained from an image sensor (3) when the release button is depressed to SW1 (step S4; Fig. 4A). When the release button is further depressed to SW2 (step S29; Fig. 5), an image is captured and recorded into a memory card (step S42 & S43; Fig. 6). See Kondo; Fig. 4A – 6; col. 5, lines 63 – col. 8, line 45.

Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Kondo into the apparatus of Saruwatari to implement a two-stroke release button for performing *at least one* of auto exposure and auto focus in response to activation of a half-depressed position and further recording an image in response to activation of a full-depressed position so as to provide a better control of the camera with simplified user interface.

5. Claims 28 & 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saruwatari et al. and Norita et al. as applied to claim 38 and in further view of Takahashi et al. (US 5,831,676).

Regarding claim 39, although Saruwarati teaches a second determining device that determines an aperture range including an aperture (a fully open aperture) out of the aperture range for the normal shooting as analyzed in claims 2 & 38, Saruwatari and Norita are silent about that the controlling device uses said second determining device when a portrait mode is selected by said shooting mode setting device.

However, as taught by Takahashi, an electronic camera includes a microcomputer of the camera that uses a mode setting look-up table to set a portrait mode in response to the user's selection (Figs. 3 & 21). In the portrait mode, an aperture of an iris is set to a fully open aperture so as to provide the smallest depth of focus, thus making the photographed person conspicuous from the background (see col. 21, lines 3-7, 41-46).

Therefore, it would have been obvious to one of ordinary skill in the art at to modify the camera apparatus of Saruwatari and Norita in view of Takahashi such that the controlling device uses said second determining device for setting the aperture to a fully open aperture when a portrait mode is selected by said shooting mode setting device so as to provide the smallest depth of focus, thus making the photographed person conspicuous from the background as suggested by Takahashi.

Regarding claim 28, all limitations of claim 28 are also met by the analysis of claim 39.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saruwatari et al. (US 6,727,949 B1) in view of Takahashi et al. (US 5,831,676).

Regarding claim 17, as analyzed in claim 16, Saruwatari discloses determining the aperture (a fully open aperture) out of an aperture range for a normal shooting. Saruwatari is silent about that the aperture is used when a portrait mode is selected as the shooting mode.

However, as taught by Takahashi, an electronic camera includes a microcomputer of the camera that uses a mode setting look-up table to set a portrait mode in response to the user's selection (Figs. 3 & 21). In the portrait mode, an aperture of an iris is set to a fully open aperture so as to provide the smallest depth of focus, thus making the photographed person conspicuous from the background (see col. 21, lines 3-7, 41-46).

Therefore, it would have been obvious to one of ordinary skill in the art at to modify the camera apparatus of Saruwatari in view of Takahashi such that the fully open aperture is used when a portrait mode is selected as a shooting mode so as to provide the smallest depth of focus, thus making the photographed person conspicuous from the background as suggested by Takahashi.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Nhan Tran', with a stylized, flowing script.

NHAN T. TRAN
Patent Examiner